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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/815,871

04/02/2004

Koji Ozaki

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1011

22850

7590

08/23/2006

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EXAMINER

SCHLIE, PAUL W

ART UNIT

PAPER NUMBER

2186

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,871	<b>Applicant(s)</b> OZAKI, KOJI	
	<b>Examiner</b> Paul W. Schlie	<b>Art Unit</b> 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 0718.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14, 16, 18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16, 18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-14, 16, 18, 20-22 have been examined as amended, with claims 15, 17 and 19 being canceled.

#### ***Response to Arguments***

2. Applicant's arguments filed 7/18/06 in conjunction with an examiner initiated interview seeking clarification of the claimed invention dated 8/15/06 have been fully considered but they are not persuasive.

As specifically, although it is acknowledged that Fukunaga et al. is not directed at (and arguably even teaches away from) the claimed invention, Fukunaga et al. does acknowledge as prior art an apparatus configuration inherently capable of that claimed; and thereby the rejection is maintained as further clarified below.

#### ***Priority***

3. Applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) is acknowledged.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 18 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As a "program" is not considered statutory subject matter; however a "product comprising computer readable storage media storing a program that when executed causes an information processing system comprising ... to perform ..." or similar is acceptable.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-14, 16, 18, 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al. (4,481,573).

As per independent claims 1, 14, 16, 18, 20-22, Fukunaga et al. teaches by acknowledging as prior art (see column 2 lines 56-61) that a processor may utilize distinct logical/physical instruction and data memory interfaces (as are inherently characteristic of a Harvard architecture) each correspondingly interconnected to independent TLB responsible for translating corresponding virtual addresses to physical addresses, and thereby may inherently map these otherwise independent virtual address associated with instructions and their corresponding operands to a common physical address space along common boundaries if said TLBs correspondingly utilize common page/segment sizes and correspondingly utilize independent translation tables or means; and where although Fukunaga et al. does not explicitly teach that such a system may be comprised within an imaging apparatus, it is considered obvious to one of ordinary skill in the art that such a configuration may be utilized within any processing apparatus to improve the efficiency of its processing. Further, although cited but not utilized as the basis of the rejection, please see Sachs et al. 4,860,196 Figure 1, also

depicting such a system as claimed and as correspondingly depicted within Figure 5 of the applicant's disclosure.

As per claims 2-13 dependent on claim 1 or corresponding dependent claim inclusively, it is considered inherent within such a system that the virtual address of an instruction relative operand would be equal (thereby less than or equal) to the virtual address of the instruction plus it's relative offset; and that said physical address space may obviously be mapped to arbitrary physically addressable memory and/or I/O interfaces in any manor inclusive of the transliteration of an arbitrary number of physical address bits as may be desired and/or utilize conventionally well known cache/TLB implementation techniques to restrict access privileges to associated areas as they are considered obvious design choices available to those of ordinary skill in the art, and thereby not considered a patentably distinguishable limitation. (Further see column 1 lines 46-49 and figures 9-17.)


### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul W. Schlie whose telephone number is 571-272-6765. The examiner can normally be reached on Mon-Thu 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 517-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2186

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**MATTHEW KIM**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER